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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,105	04/28/2006	Jorgen Christian Sondergaard	HOI-13402/16	4284
25006	7590	03/14/2008	EXAMINER	
GIFFORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C			GEDEON, BRIAN T	
PO BOX 7021				
TROY, MI 48007-7021			ART UNIT	PAPER NUMBER
			3766	
			MAIL DATE	DELIVERY MODE
			03/14/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,105	<b>Applicant(s)</b> SONDERGAARD ET AL.	
	<b>Examiner</b> Brian T. Gedeon	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/14/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The preliminary amendment filed 30 June 2005 has been acknowledged.

#### ***Priority***

2. Acknowledgment is made of the national stage entry of PCT/DK03/00891 which applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) for Application no. PA 2003 00009 filed 8 January 2003 in Denmark.

#### ***Information Disclosure Statement***

3. The information disclosure statement filed 14 October 2005 has been acknowledged.

#### ***Drawings***

4. The drawings filed 30 June 2005 have been accepted.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shalvi (US Patent no. 5,251,637) in view of Nekhendzy et al. (US Patent no. 6,567,702 —hereinafter Nekhendzy).

In regard to claim 1, Shalvi discloses an electro-therapeutic device with first and second electrodes 4 and 11 for making contact with the body of an individual. The device has a voltage source for applying alternating voltage across the electrodes to pass a current through the body of the user, col 1 lines 55-59. The device operates in two modes, a search mode, considered to be the "standby mode", and a stimulation mode, considered to be stimulation mode, col 4 lines 16-20. A mode select control 27 is considered to be the mode shifter, col 5 lines 43-45. Shalvi does not teach using applying an alternating current, however, suggests that an alternating current (AC) may be desirable because application of DC current may result in the undesirable electro deposition of materials to the body, col 2 lines 15-17. Shalvi also does not teach automatically changing between a low frequency and a high frequency. Nekhendzy, in a similar field of endeavor, describes a method for inducing electro analgesia in a human patient in which it is taught that it may be preferable to apply AC currents in order to prevent skin burns in the patient normally caused by DC current, col 7 lines 20-40, wherein the frequency is changed between 10 and 100 Hz. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shalvi in view of Nekhendzy since it would involve combining known techniques to a known device to yield predictable results, and in view that Shalvi suggests that it may be preferable to deliver AC current instead of DC current.

In regard to claims 2 and 3, the search mode (i.e., standby mode) of Shalvi operates under negligible current values (3 microamps max), wherein the stimulation mode (i.e., active mode) operates under greater current amplitudes, col 4 lines 16-20, 26-29, and 36-39.

In regard to claim 4, the mode select control of Shalvi includes a power up reset and a pull up resistor, col 5 lines 42-57.

In regard to claims 5 and 6, voltage source of Shalvi is capable of controlling the stimulation amplitude, stimulation mode, and the stimulation period, col 4 lines 40-51.

In regard to claims 7-28, Shalvi in view of Nekhendzy describe the invention as claimed, wherein Shalvi provides stimulation at 16 Hz, col 6 line 33, for a preset period of time between 15-30 seconds, col 7 lines 4-6. Nekhendzy teaches using stimulation frequencies between 10 to 100 Hz, or between 10 kHz to 10 MHz, however neither teach the use of frequencies below 10 Hz. The Examiner considers that it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply frequencies in ranges for the preset period of time as claimed since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges only involves routine skill in the art. *In re Aller*, 105 USPQ 233.

In regard to claims 29-32, the device of Shalvi contains a first and second electrode 4 and 11. The device is held in the hand, wherein electrode 11 makes contact with the skin between the thumb and forefinger, and electrode 4 is places on a desired point for treatment on the body, col 6 line 63 - col 7 lines 2 and 16-28.

In regard to claims 33-36, the device of Shalvi operates to detect a low resistance point on the body, col 4 lines 16-17. The body conductance is also measured and is converted to a variable frequency audio signal which increases in pitch with an increase in conductance, col 4 lines 26-35. The device can also have an LED 16.

In regard to claims 37-39, Shalvi applies a voltage in the range of 40V-90V and a current up to 9 mA, col 6 lines 27-29, and Nekhendzy supplies current in the range of 0.2-20 mA, abstract. The Examiner considers that it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply frequencies in ranges for the preset period of time as claimed since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges only involves routine skill in the art. *In re Aller*, 105 USPQ 233.

In regard to claims 40 and 41, Nekhendzy teaches the use of commonly accepted material for medical electrodes, such as silver-silver chloride electrodes, col 11 lines 33-37.

### **Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Gedeon whose telephone number is (571) 272-3447. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on (571) 272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/  
Supervisory Patent Examiner, Art Unit 3766

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